



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,516	03/09/2004	Richard J. Petschauer	6817	1963

7590 07/27/2006
Charles A. Johnson
1448 90th Avenue
Amery, WI 54001

EXAMINER

BANKHEAD, GENE LOUIS

ART UNIT	PAPER NUMBER
----------	--------------

3744

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/796,516	PETSCHAUER, RICHARD J.	
	Examiner	Art Unit	
	Gene L. Bankhead	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 12-15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 6-10, 11, 16, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 8-9 are objected to because of the following informalities:

Claim 8 recites the limitation "selectively variable circuit" in line 1. Claim 5, from which claim 8 depends, makes no mention of a "selectively variable circuit". It is believed the "selectively variable circuit" of claim 8 refers to "selectively variable circuit" in line 7 of claim 6. It is believed claim 8 is meant to be dependent upon claim 6 and so has been treated. Appropriate correction is required.

Claim 9 recites the limitation "second manually adjustable potentiometer" in line 2. Claim 5, from which claim 9 depends, makes no mention of a "first manually adjustable potentiometer". It is believed that claim 9 is meant to be dependent upon claim 8, which makes mention of a "first manually adjustable potentiometer" in line 2, and so has been treated. Appropriate correction required

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,12-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Shyu (US 5259553).

With regard to claim 1, Shyu teaches a humidity control system with an inside room humidity sensor 13, a humidity controller 5 having a selectively actuatable humidity level selection control capable of selecting a target in-room humidity (column 4 lines 29-43), an outside temperature sensor circuit 12, and an outside temperature humidity compensator circuit 4 coupled to the outside temperature sensor circuit. Shyu further teaches the humidity level is adjusted based on the sensed outside temperature (column 3 lines 42-61 and column 4 lines 29-59).

Regarding claim 3, Shyu teaches a microcomputer 3 and signal transfer face 2, which act together to form a compensation network with the ability to adjust and modify temperature and humidity conditions (column 4 lines 29-59).

In regards to claim 12 and 13, Shyu teaches a humidity adjusting system capable of providing selectively reduced signals indicative of sensed indoor humidity levels, sensing changes in outside temperature and developing temperature controlled adjusting signals indicative of such changes, combining the selectively reduced and adjusting signals and providing output signals used to control the operation of the humidity controller. Shyu further teaches a system capable of developing a source of setpoint settings and humidity change settings for a predetermined range of outside temperatures and humidity changes, and selecting a setpoint setting based on the desired rate of humidity change and outside temperature range (column 4 lines 29-36 and 43-68 and Figure 2).

Regarding claim 14 and 15, Shyu discloses an outside temperature humidity control system with a receiving means 12 capable of sensing changes in outdoor

temperature, a humidity receiving means 13 capable of sensing humidity levels, reducing means 5 capable of reducing sensed humidity levels, adjusting means 5 capable of adjusting to changes in outside temperature, outputting means 4 wherein the output signals can be utilized to control a humidity controller. Shyu further teaches a rating means capable of permitting manual selectable settings for defining the rate of percentage of humidity changes for a range of temperature changes, see Figure 2.

With regard to claim 17, Shyu discloses an outside temperature humidity compensation circuit with a first input circuit 13 capable of sensing humidity levels, a second input circuit 3 coupled to the outside temperature sensor, a first compensating circuit 2 coupled to the humidity sensor and microcomputer, an output circuit 5, a selectively variable circuit 4 coupled to the humidity sensor, microcomputer, signal transfer interface and actuation device circuit, to provide second variable signals to the output circuit 5, whereby the actuation device circuit provides second variable signals based on the sensed outside temperatures and changes in humidity (column 4 lines 29-39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shyu in view of Kitamura (US 4911357).

With regard to claims 2 and 18, Shyu teaches a humidity control system with an outside temperature sensor however, fails to teach a thermistor circuit. Kitamura teaches a thermistor T_{hs} in a humidity sensing element 1, column 5 lines 8-13. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the thermistor of Kitamura into the temperature sensors of Shyu's humidity control system because the thermistor's heat sink construction and small size enable for much faster temperature response times, and thus advantageously adjusts humidity levels more quickly.

Claim 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shyu in view of Kitamura in further view of Robb Jr. (US 3118601).

With regard to claim 5, Shyu, as modified by Kitamura, teaches a first compensating circuit 3 coupled to the inside room humidity sensor capable of providing a variable bias signal based on a sensed outside temperature (column 4 lines 29-39). However, he fails to teach an input divider circuit in the compensation network. Robb Jr. teaches a control circuit, used for adjusting environmental and humidity conditions, with an input divider circuit 30 including an outdoor sensor circuit (column 1 lines 50-60). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the input divider circuit of Kitamura into the humidity control system of Shyu, as modified by Kitamura, to advantageously limit voltage consumption. Limiting voltage

consumption of the compensation network saves on energy costs in operating a humidity control system.

In regard to claim 7, see the rejection of claims 2 and 18 as claims cite similar subject matter.

Allowable Subject Matter

Claims 4,6-10,11,16, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene L. Bankhead whose telephone number is (571)-272-8963. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571)-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


CHERYL TYLER
SUPERVISORY PATENT EXAMINER

Gene Bankhead
Examiner
Art Unit 3744

adjustable potentiometer capable of adjusting the effective rate of percentage of humidity change.

In regard to claim 20, further includes a control switch coupled between the second input circuit and output circuit, the switch can further be active or inactive. With regard to claim 5, Shyu discloses an input divider circuit including the outside sensor circuit, and a first compensating circuit coupled to the inside room humidity sensor and the input divider circuit capable of providing a variable signal level responsive to outside temperature sensed by said outside temperature sensor circuit. With regard to claim 13, developing a source of setpoint settings and rate of humidity change settings for a predetermined range of outside temperatures and a predetermined range of percentage of humidity changes associated with changes in outside temperature, selecting the setpoint setting and the rate of humidity change setting from the source of settings capable a desired outside temperature range and a desired rate of humidity change.

Regarding claim 19, said selectively variable circuit includes a manually